

## The Swinging 60's



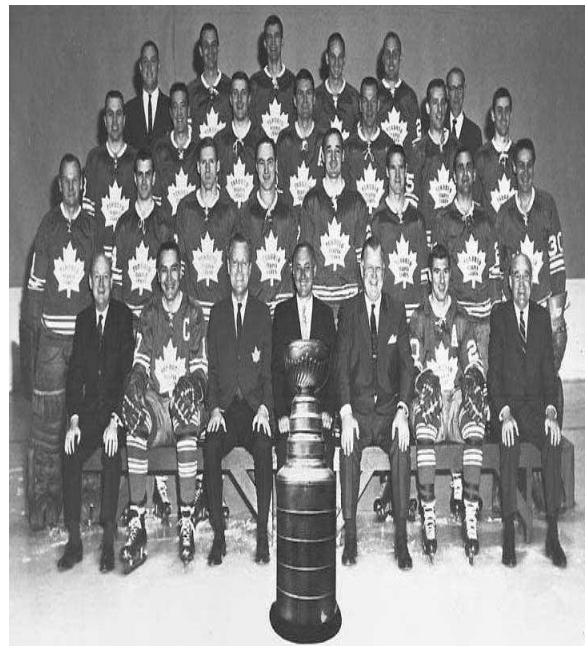
(Source: [www.belovedsong.com](http://www.belovedsong.com))

The 1960s was a decade that saw some of the most radical changes in recent history. The war in Vietnam was met with heavy protest (indicating a shift in the people's trust in their government (pictured above), the civil rights movement for equal rights and treatment of minorities (Martin Luther King pictured above), a march on Washington, the rise of feminism (also known as the "second wave") seeking equal treatment among the sexes, the Cold War was still on-going, nuclear fallout was a distinct possibility (**insert duck and cover link**) and of course the space race against the Soviets.

The 1960s also saw the last Stanley Cup win by the Toronto Maple Leafs (1967), the implementation of a military draft that saw even Elvis Presley get drafted (indicating that anyone was capable of being asked to go to war), and the richness of the music has yet to be equaled to this day (Eric Clapton and Jimi Hendrix).



(Source: [www.writespirit.net/inspirational\\_talks](http://www.writespirit.net/inspirational_talks))



(Source: [NHL.com](http://NHL.com))

## Hypothesis

We believe that the changes in science in the 1961 to 1970 era were so numerous that the textbooks used in the classrooms, in this time, would not have been able to keep up. We feel that texts will be behind the times and, therefore, not a great resource for teachers or students.

## Discussion of Sources

**Primary Sources:** At the University of New Brunswick, we explored the following resources:

- “The organization of instruction for New Brunswick Public Schools and other related information” New Brunswick Department of Education, Fredericton, 1968. This source documents the public education systems reorganization plans for the New Brunswick public education system.
- “Historical Statistics of New Brunswick.” Statistics Canada. This was a source whose relevance was to give historically accurate numbers as to the population of New Brunswick in the 1960’s.
- New Brunswick Department of Education Report, 1960-1961, 1963-1964 and 1968.
- Government of New Brunswick Elementary Programme of Studies, 1961 and 1964.
- Government of New Brunswick Intermediate Programme of Studies, 1961.
- Government of New Brunswick Junior High Programme of Studies, 1970.
- Government of New Brunswick Outline of Programme of Studies for High Schools, 1961-1962 and 1969-1970. These were used as a resource for teachers as their curriculum. We looked at them to see what resources were used.
- New Brunswick Department of Education annual reports, 1960-64 and 1968. These were used to gain an insight of what the achievements and concerns of the Department of Education were having during the 1960’s.
- The following textbooks were founds at Fredericton’s School Days Museum:
- *Physical Science - A modern Approach* Charles L. Bickel, Neil D. Eigenfeld and John C. Hogg. Princeton NJ: D, Van Nortstad Company Inc. 1968. This text was used in grade 9 General Science in 1970. We looked at the content to determine if it was current to the times and found that the chapter that talked about rockets and space was not included in the Programme of Studies as a chapter to be used in the classroom.
- *Modern Physical Science* Williams O. Brooks, George R. Tracy, Harry E. Tropp. New York: Holt Rinehart and Winston Inc. 1962. This text was used in grade 10 physical science in 1970 and we used it to compare with the next edition as far as appeal to the reader and what types of topics were discussed.
- *Modern Physical Science* Williams O. Brooks, George R. Tracy, Harry E. Tropp. New York: Holt Rinehart and Winston Inc. 1965. We used this text to make a comparison with the previous version as well as the 1968 version. We examined the content to see if there

was anything relevant to our findings in the decade. This text was not used in the classroom during our time frame.

- *Modern Physical Science* Williams O. Brooks, George R. Tracy, Harry E. Tropp, Alfred E. Friedl. New York: Holt Rinehart and Winston Inc. 1968. We examined this text to show the difference in appeal to the previous versions as well as looking for information on current events. This text was not used in the time period we looked at.

**Secondary Sources:** The secondary source literature consulted in this research was:

- Chalifour, Bruno. "Agent Orange: "Collateral Damage" In Vietnam." *Afterimage* 31.6 (2004): 22.
- A book found using the UNB libraries also discussing the harmful effects of the use of Agent Orange in Vietnam. *Academic Search Premier*. EBSCO. Web. 13 Nov. 2010.

**The images and media examined and reproduced here come from the following sources:**

- <http://www.thecanadianencyclopedia.com/>
- This website provided an extensive look at Canadian history in the form of a timeline.
- <http://www.isaacbickerstaff.wordpress.com/>
- Provided a photo of the military establishing its presence in Montreal

during the FLQ crisis.

- <http://www.collectionscanada.gc.ca/>
- Provided a timeline of Canadian history during the 1960's.
- [http://www.agentorangealert.com/images/Info\\_Sheet\\_14-06-05.pdf](http://www.agentorangealert.com/images/Info_Sheet_14-06-05.pdf)
- Provided information regarding Agent Orange testing during the Vietnam War at Base Gagetown in Fredericton.
- <http://www.gagetownmovie.com>
- Provided the newspaper article regarding the 600 barrels of Agent Orange found at Base Gagetown.
- <http://www.cbc.ca/news/background/agentorange/>
- Found through the UNB libraries website. Article written in 2007 discussing the class action suit regarding Agent Orange victims exposed to the chemical during Vietnam War.
- <http://www.forces.gc.ca/site/reports-rapports/defoliant/index-eng.asp>
- Provided numbers for the Vietnam soldiers and the effects of the defoliant Agent Orange on Soldiers and Vietnamese citizens.
- Emerson, William A. "Frankenstein in South Africa". *Saturday Evening Post*. Vol. 241. Issue 3, 1968 , p71.

- A news paper written about the miraculous breakthrough of the first ever successful heart transplant. Found using the UNB Academic Search Premiere search engine
- Colaresi, Michael P., and Joachim Karl Rennstich. "Lost in Space: A Time-Series Analysis of the U.S.-Soviet Space Race." Conference Papers -- International Studies Association (2004): 1-37.
- This article was used to gain information regarding the space race between the Soviet Union and the USA during the 1960's.
- Kelly, Robert, and Erin Cook. "Martin Luther King, Jr., and Malcolm X: A Common Solution." OAH Magazine of History 19.1 (2005): 37-40
- Found using the UNB libraries EBSCO search engine. It discusses the different but similar views of both civil rights leaders.
- [http://en.wikipedia.org/wiki/Department\\_of\\_Education\\_\(New\\_Brunswick\)](http://en.wikipedia.org/wiki/Department_of_Education_(New_Brunswick)). This website showed the administration of Ministers, their terms that were served and government agencies that were in power in New Brunswick from 1938-2006.
- [www.answers.com/topic/new-brunswick](http://www.answers.com/topic/new-brunswick). Used as a resource to gather information about the historical political background of New Brunswick.
- [www.gnb.ca/legis/publications/tradition/premiers/robichaudl-e.asp](http://www.gnb.ca/legis/publications/tradition/premiers/robichaudl-e.asp). Used as a resource to compile information on the legislative assembly of New Brunswick

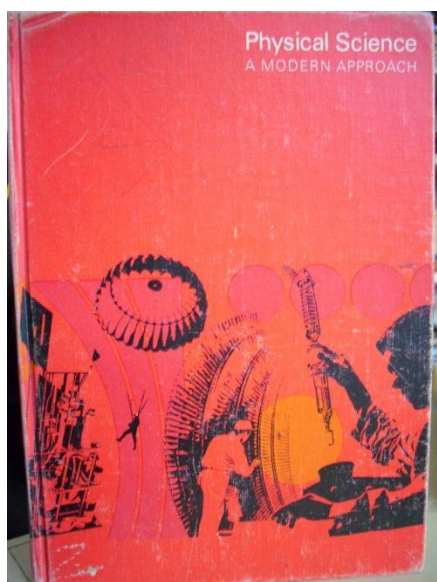
and the premiers since confederation. In particular, Louis J. Robichaud.

- [www.en.wikipedia.org/wiki/louis-robichaud](http://www.en.wikipedia.org/wiki/louis-robichaud). Used as a resource to gain insight into the background of Louis J Robichaud and the relevance of his life as it pertains to his political moves.
- [www.writespirit.net/inspirational\\_talks](http://www.writespirit.net/inspirational_talks)
- Used to get a photo of Martin Luther King Jr.
- [www.belovedsong.com](http://www.belovedsong.com)
- Used to get photo of Vietnam protests.

### **Teaching and Learning Resources in Science Education 1961 – 1970**

Our search for textbooks used in this decade brought us to the archives in the University of New Brunswick Harriet Irving library as well as the collection kept at the School Days Museum located in downtown Fredericton. We were able to find quite a few examples of the types of texts used in the school system below are a few examples:

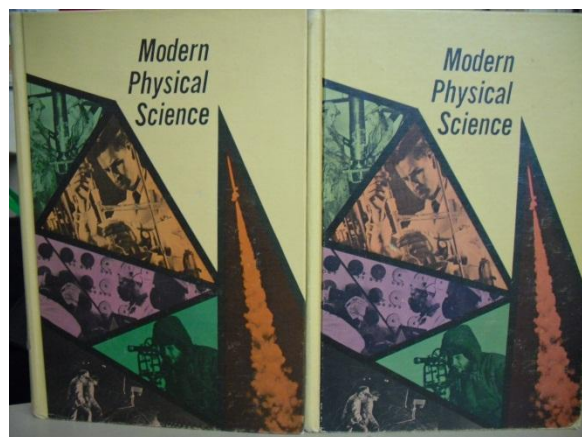
Physical Science – A Modern Approach. Charles L. Bickel, Neil D. Eigenfeld, John C. Hogg. D. Van Norstad Company Inc. Princeton, NJ 1968. This text was used in Grade 9 General Science in 1970.



(Source: School Days Museum)

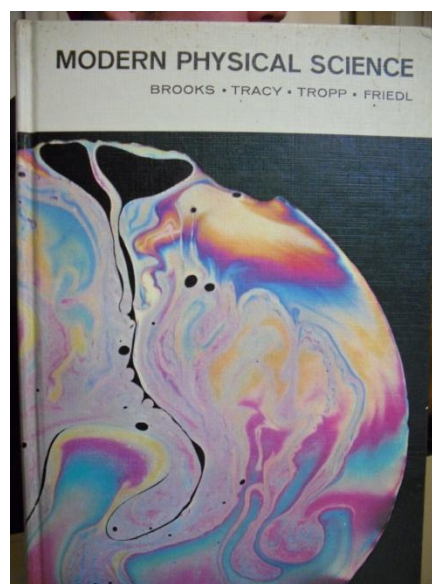
We felt that there was a shift in the way textbooks looked over the decade and we have some pictures of different texts to give an example what we found:

1962/65 Modern Physical Science



(Source: School Days Museum)

Then in 1968:



(Source: School Days Museum)

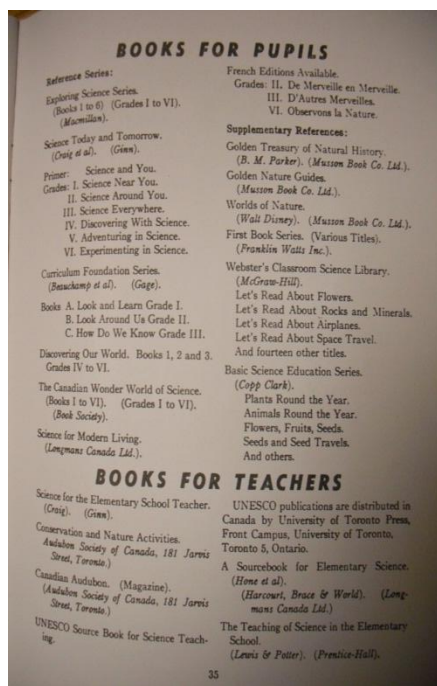
As you can see there was a shift in the texts. They used brighter colors to grab attention and draw the reader in. We felt this was reflecting the change in attitude that was going on in this decade. Viewing scientists as flashy, something like a rock star would help to bring in interest and increase the amount of students who would go on to become scientists.

The general format for all the textbooks we looked at was that each chapter began with a picture and title, the middle was the content and at the end of each chapter there were review questions to help the reader test their understanding of the topic. We found that although there were quite a few photos in the texts they were all in black and white with generally only one color used throughout the text.

The main source of our information regarding which textbooks were used in which year was the Programs of Studies published by the Government of New Brunswick each year. In the program they listed the aims of the courses, textbooks used, chapters/topics covered and

some information on how to loan a textbook from the museum in Saint John.

There were many texts used throughout the decade with some of them being updated versions of the previous edition. In high school for instance they were using Visualized Chemistry (Lemkin, Oxford Book Company) in the 1961 -1962 school year and by 1970 they were using Modern Chemistry (Metcalf et al), 1966 edition. In grade 10 physics they were using Modern Physics, (Dull, Metcalfe and Brooks, Clarke, Irwin) in 1961 whereas in 1970 they used Modern Physics, 1964 edition (Metcalf et al). In grade 7 and 8 science, 1961, they were using General Science and Agriculture, (MacDiarmid and Moore, Copp Clark Publishing Company) (completed over two years) and by 1970 each grade had their own text: Science Activities 7 and Science Activities 8 (Atlantic Edition) (Hedges et al, W.J. Gage Limited). By below is a picture of the list of texts used in elementary science in 1961. (for a more complete list please see the individual Program of Studies produced by the Government of New Brunswick):



(Source: Harriet Irving Library)

Themes examined in the textbooks included a focus on the student's surrounding environment and how to improve it in the early 60's and then by the beginning of the 70's the focus appeared to shift more towards an appreciation of what science methods were, how to work with them and encouraging scientific interests. There was a need for skilled workers in the work force and encouraging students to pursue an interest in science was important.

The aims of the science curriculum as stated by the Government of New Brunswick in 1960 for Junior High General Science were to:

1. To develop an appreciation of the efforts put forth to make modern science possible.
2. To develop an understanding of our environment.
3. To better living conditions by improving our environment.
4. To cultivate an open mind for the truth, and to develop a habit of accuracy in observation and conclusion.
5. To instill within the pupils a love for and an appreciation of nature, and through it to encourage them at all times to use their knowledge of science in an effort to improve and beautify the home and school surroundings.
6. To guide pupils in their choice of future science studies and vocations.

In 1970 the aims were stated as:

1. To provide an introduction to the nature and methods of science and to develop an understanding of basic scientific facts and concepts.

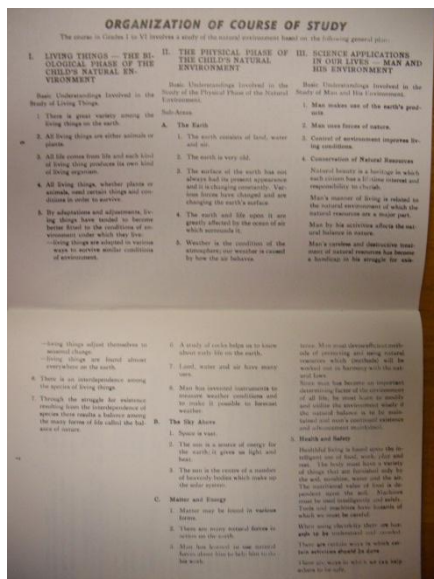
2. To develop facility in working with methods and tools of science.
3. To gain broad insights into the expanding effects of science upon society.
4. To encourage pupils in discovering and making the most of their scientific interests and aptitudes.

The attitude towards the textbooks used in the classrooms was one where the "text will serve its purpose best when used as the basis and guide to the study of the topics suggested by the chapter headings" (JH 1961).

The Program of Studies published by the Government of New Brunswick in 1961 gave the following break downs for science education:

Elementary:

1. Living Things - the Biological phase of the child's natural environment.
2. The Physical Phase of the child's natural environment.
3. Science Applications in our Lives – Man and his environment



(Source: Harriet Irving Library)

We were able to find the 1961 and 1964 Program of Studies for elementary general science and comparing these two there were no changes in the outlines given by the Government of New Brunswick.

Junior High 1961 - Grade 9 – "Special note to teachers: All work in connection with plant and animal life should, where possible, be tied up with activities in connection with gardens and home". (JH1961)

1. Air – composition, atmosphere, necessity for life, air conditioning, work done by air.
2. Water – necessity of life, forms and properties, composition, sources, purification and protection of supply, use hard and soft and boiling/freezing points.
3. Fire and Heat – sources, temperature, affects on life, affects on matter, use of fire, conduction, convection and radiation.
4. A study of Materials – matter, forms, physical and chemical changes, properties.
5. Our Physical Universe – the solar system, the earth.
6. Simple Machines – factors of work, energy, tools, levers, wheel and axel, power.
7. & 8. Magnetism - Electricity – unit of power, importance, solution of simple problem, experiments with magnets, substances, current and static electricity, local electric systems.
9. Light – travel, spectrum, images, shadows, pinhole camera, bending, refraction, lenses, simple microscope, motion pictures, methods of lighting.
10. Sound – cause, carriers, echo, voice, human ear, intensity, quality, telephone, phonograph, radio.

11. The Life and Growth of Living Things – living cells, structure, typical plant and animal cell, production and storing of energy, reproduction, methods of taking in food. Protozoa: single –celled bacteria, molds, etc. – comparison, examination, growing a sample, common molds, cellular structure of leaf, muscle, nerve, blood and bone cells of an animal. Functions of organs, digestion, and production of energy and elimination of waste materials.
12. New Brunswick Agriculture - Department of Agriculture history and services rendered types of farming.
13. Forestry – products of the forest, history, ownership, influence of land clearing and forest fires, protection of forests, cutting methods and reforestation.
14. New Brunswick Birds and Flowers –learn to recognize birds and flowers by observations, and by the preparation of charts.
15. Science Today and Tomorrow – weather, transportation, communication, new materials and processes (metals, plastics, fabrics, synthetic rubber) and new sources of energy (atomic power).

Given that the textbooks used in the curricular documents were outdated as far as 6 years in the past, we examined text books published in the late 1960's to try to determine if they were current. For instance, in 1970, grade 10 Physical Science, they were using the 1964 edition of the textbook. In order to test our hypotheses we picked out a few key events during the decade and looked to see if we could see any evidence of them in the textbooks. We felt that man walking on the moon and scientific breakthroughs such as a heart transplant would be good things to look for. Overall our examination of the textbooks

found that there was little evidence that any of this information made it into the textbooks in time to teach the students about it. We would assume that the students would still be discussing what was current though they would not be using the textbooks as a source of information.

### **Context of Education in New Brunswick**



Between 1961 and 1970, public education in New Brunswick was under the Louis Robichaud Government. Henry Irwin was the minister of education from July 8, 1960-April 5, 1966 followed by W. Wynn Meldrum from April 5, 1966 until November 12, 1970. ([http://en.wikipedia.org/wiki/Department\\_of Education \(New Brunswick\)](http://en.wikipedia.org/wiki/Department_of_Education_(New_Brunswick)) (Louis Robichaud: [www.new-brunswick.net](http://www.new-brunswick.net))

Kindergarten was considered to be an integral part of the education system when it came to assessing a child's ability to progress through elementary school. If Kindergarten was not a part of the public education system, then it would be solely the responsibility of the teacher to assess the child's social and emotional ranges of development and that would mean that teachers would have to be educated on what to look for. All groupings of students were said to be tentative and under continual evaluation, although if there were staff in the school who

were trained specifically to classify students (Guidance Counselors), that would not be the case (Organization of instruction for New Brunswick public schools and other related information, p.19).

“Continual Progress” was a catch phrase for education in this decade. Opportunity classes were put into place for the “educatable retardates.” This was a system that was complimented by the elementary school program for the children who were unable to move through the regular program. Students had to undergo extensive psychological examinations before being placed into the opportunity classes. These programs did not exist in Junior High but were something that the Department of Education hoped to have in the near future (Organization of instruction for New Brunswick public schools and other related information, p.11).

The organization of instruction for New Brunswick public schools tells us that, in this decade, promotion policies were being scrutinized. It was said that failure to grade does not result in that particular student showing any improvement academically when given a second chance to complete a grade. They believe that there is a direct relationship between school failure and attention getting behaviours being displayed in the classroom. The only evident result in holding a student back is the student developing a poor self image which turns into poor self esteem and the belief that they are unable to succeed in school (11).

In 1961, the Department of Education acknowledged the fact that “we are living in a scientific age- yes, in an age of automation when past programs are no longer adequate, and when training techniques and curricula must be revamped in the light of present and future needs” (1960-61 Department of Education annual report). Realizing that the education system was

having difficulty keeping up with the continual changes in society, the department took a number of steps to attempt to upgrade their teachers, as well as the information that was being taught. Some of the avenues explored were: teaching training in literacy, mathematics and science through department upgrading programs, opening technical institutes, introducing new courses in schools and working with the labour board to find out which skills and knowledge are in demand. (1960-61 Department of Education annual report)



In 1962, some of the technologies that were said to be improving society were causing the school system major problems that had to be

taken under consideration. The use of television in the classrooms was an area that was under great scrutiny. (corbisimages.com) (1960-61 Department of Education annual report).

In 1963/64, the education requirements that were once acceptable are not sufficient. If you want to become gainfully employed, then you need to be educated with the newest technologies. This places the responsibility of giving each student the highest amount of education possible, strictly on the school system.



In preparation for that, new technical institutes in Saint John, St. Andrews and Bathurst were open with classes filled to capacity to be able to keep up with the employment demands of the labour force. The

announcements of mining developments in Belledunes industrial complex and the hydrocomplex near Fredericton dictated what was taught in schools, in order to ensure that skills were relevant to the labour force.

The notion now is that machines are replacing men and that the level of competence that most people are equipped with is not now compatible with today's society. It is obvious that we need to stay current (1963-64 Department of Education annual report).



In 1968, the message that the ministry of education wanted to send out to their public schools was that "the function of this school, even in today's age of technology, should not be confined to the immediate preparation of people with the necessary minimum qualifications for the job at hand. Education must produce people who are competent, of course, but people who can adapt to new tasks and new environments with ease. Above all, it must produce people with a high sense of integrity and respect for human dignity, people who can lead their fellow men through the intricacies of living happily in a society which will need rare gifts of leadership" (1968 Department of Education annual report) (28leadership.com)

### **Broader Social and Scientific context in**

#### **New Brunswick**

In 1961, the population of New Brunswick was 597,936. This was an increase of 82,239 from 1951. The New Brunswick flag was adopted by proclamation on February 24, 1965 (Historical Statistics of New Brunswick).

In 1960, Louis J Robichaud became the first Acadian premier of New Brunswick. Under the Robichaud government, New Brunswick underwent numerous noteworthy changes. He was responsible for a whole array of social

reforms, one of which was the equal opportunity plan ([www.answers.com/topic/new-brunswick](http://www.answers.com/topic/new-brunswick)).

The equal opportunity plan involved things like revised liquor laws, collective bargaining rights for civil service, establishment of department of youth, appointment of a provincial ombudsman, adoption of non premium Medicare system and a vitalization of provinces natural resources sector

([www.gnb.ca/legis/publications/tradition/premier/robichaudl-e.asp](http://www.gnb.ca/legis/publications/tradition/premier/robichaudl-e.asp)).

The motivation for the equal opportunity plan was to make certain that equal services be available to all people, no matter what their monetary standing. This plan influenced the lives of New Brunswickers tremendously. Prior to this, New Brunswick health and education systems were run and funded by county governments. Under equal opportunity, county governments were removed and the province took on all responsibility for education and health care and public schools and hospitals were modernized across the province. In 1980, Robichaud stated, "when I first realized that there was absolutely no equal opportunity, no equality in new Brunswick, well, I had to come to the conclusion that something had to be done immediately" ([www.en.wikipedia.org/wiki/louis-robichaud](http://www.en.wikipedia.org/wiki/louis-robichaud)).

The passing of the official languages act, which made the French language an official language, was a momentous event in New Brunswick. This act provided Acadians with equal status and opportunities in the province. This included things such as, access to government services in French as well as increasing the number of Acadians employed in the provincial public service. Louis Robichaud was influential in the



creation of l'Universit  de Moncton in 1963, which was created to educate and foster the Acadian culture ([www.gnb.ca/legis/publications/tradition/remiers/robichaudl-e.asp](http://www.gnb.ca/legis/publications/tradition/remiers/robichaudl-e.asp)).

### **History: What was happening at this time?**

#### **In World**

History during the 1960s was a constantly evolving and rapidly changing force. To put into context the significant developments that occurred, it is important to look at these changes. Were text books able to keep up with all of these rapid changes?

#### **Space Race**

Dominating most of the 60's was the space race between the Soviet Union and the USA. Both countries were in a constant competition to dominate the space frontier. The Soviets took the lead in April of 1961, when they launched Yuri Gagarin into outer-space (during the Vostok 1 mission). President John F. Kennedy countered this in May of 1961 by guaranteeing a successful space mission resulting in a lunar walk by man by the end of the decade.

What's interesting to note here is that in the text books that we looked at for the years of 1962-1965 (a period where the Soviets were dominating the space race) there is no mention of space exploration in the text books we found. Most notably *Modern Physical Science* (1962 and 1965); however, in 1966 the same book was updated with a colorful new cover and a very extensive section on space exploration (the



(Source: Time Magazine.com)

American's had taken the lead in the space race at this point).

However, by 1966 the Soviets still had a lead having launched Luna 10 into space, resulting in the first space probe to orbit the moon. The race was on between the U.S. and the Soviets to have a man on the moon, and in 1969 this goal was achieved. July 20, 1969 saw Apollo 11 (piloted by Neil Armstrong, Buzz Aldrin and Michael Collins) became the first successful space mission to land and walk on the moon. The U.S. had fulfilled Kennedy's goal, and had won the space race. The consequences of the space race lead to a focus on Science. Due to the fact that most of the race the Americans were considered inferior, they put an extra push on increasing science in the classroom. The downside was that other classes were reduced (music, art).

## Vietnam

Along with the space race, the Vietnam War dominated the headlines during the 1960s. In the late 50's with the south of Vietnam being threatened by a communist takeover from North Vietnam, the US military took action. The south had its own guerilla force to fight but was often viewed as a state controlled by US. North Vietnam became convinced the war was a Vietnam issue and that the US had no business being involved.

During the 1960's, the US implemented a draft for soldiers to go and serve in Vietnam. In 1966, draft totals were above 400 000 and college attendance saw a huge increase. This occurred because potential draft candidates could be spared if they were furthering their education. The result of the draft was in an increase in troops going to fight a war they had no real understanding of. At first Vietnam was supported by most American and Canadian citizens; however, once the atrocities of what was happening were revealed to the public, opinions quickly changed. The chemical warfare (later discussed in the historical context of Canada), torture and barbaric nature of the soldiers lead many to question what purpose North Americans had in Vietnam.



(Source: Time Magazine.com)

## Medical World

In 1967, the first successful heart transplant was completed by Christian Barnard.



(Source: Britannica.com)

It was viewed as a medical miracle to take a dead man's heart and get it to pump in a living man's body. The limits of medical science were stretched even further than thought possible. The shift from religious dominated society was in full swing as man started to step into a territory thought only possible by God. Another breakthrough from the medical and scientific community was the development of birth control. This was not only a breakthrough in promoting safe sex, but also gave women the power to protect themselves.

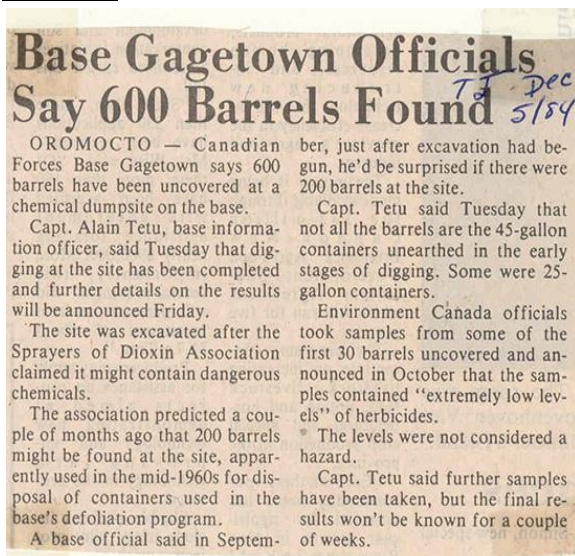
## Civil Rights Movement

The civil rights movement was an on-going process that started coming to a head in the 1960's. Leaders like Martin Luther King Jr. and Malcolm X urged black citizens to stand up for themselves and to refuse to be told where to eat, sleep, live, go to school and other injustices.

Events that contributed to the awareness of equality during this time period included: a march on Washington (with over 200 000 people attending and hearing Martin Luther King Jr.'s famous "I Have a Dream" speech), Freedom Rides (black people were not allowed to travel in buses across state lines. To protest this numerous blacks and whites banded together and travelled across state lines on greyhound buses), President Lyndon Johnson signs the Civil Rights Act of 1964 (which proclaims that discrimination based on religion, color, race or nationality is prohibited), and black voters are permitted to cast votes in dominantly white Mississippi.

Both Martin Luther King Jr. and Malcolm X, who were both central figures of hope, guidance and strength for the black community during these dark days, are both killed (Malcolm X in 1965 and Martin Luther King Jr. in 1968). Despite these losses to the community, the spark of hope had been put into all people by these men that someday society could reach a level of equality.

#### In Canada



(Source: <http://gagetownmovie.com>)

The harmful effects of chemical warfare hit close to home during the Vietnam War. According to CBC news:

Ottawa has acknowledged that Agent Orange defoliant was used in the 1960s to clear training areas at CFB Gagetown, but the government has only acknowledged the harm caused by Agent Orange when it was sprayed on Gagetown in 1966 and 1967.

CBC News learned Agent Orange wasn't the only herbicide sprayed at the base. There was also Agent Purple, lesser known, but more toxic.

(cbcnews.ca,2007)

Agent Orange was used to destroy crops and agriculture in Vietnam during the war. The chemical was also used at CFB Gagetown to clear training areas of brush. The harmful effects of the chemical became known in the 1970's to the public's shock. Soldiers who had served in Vietnam had high levels of dioxin in their blood (which can lead to deformed offspring). Women in South Vietnam also had high levels of dioxin in their breast milk.

Reports of families having high rates of deformed off-spring and high rates of cancer later sparked an investigation in 2005 with 2 000 people involved in a class action lawsuit. Despite the evidence of spraying and the harmful effects of the chemicals, the government denies that any harmful effects have been found.

### **Also Occurring In Canada During the 1960's:**

According to [collectionscanada.gc.ca](http://collectionscanada.gc.ca) and [thecanadianencyclopedia.com](http://thecanadianencyclopedia.com), some of the most significant things to also occur in Canada were:

- In 1960, the Canadian Bill of Rights is passed by John Diefenbaker's PC party. Also Universal suffrage, the right to vote for any Canadian citizen and the allowance of first nation's people to vote for the first time all happen.

- Also at this time, the Quiet Revolution begins in Quebec. Quebec saw a move to a more separatist feeling about Canada and their province, the development of a welfare-state and more control over their own financial state.

- In 1961, CTV began its broadcasting run.

- January 14, 1961, Gertrude Guerin became the first woman elected chief of the Musqueam Indian Band, who resides on the north shore of BC's Fraser River.

- June 15, 1962, Canada's first space vehicle, a 11.3 kg non-orbiting instrument package, was launched from Wallops Island, Virginia.

- The last executions occurred on December 11, 1962, when Ronald Turpin and Arthur Lucas were hanged at the Don Jail in Toronto after being found guilty of murder.

- Nov 29, 1963, a TCA airliner with 111 passengers and a crew of 7 crashed after take-off near Ste-Thérèse-de-Blainville, Québec, killing all 118 persons aboard.

- In 1964, Social Insurance Number cards began to be issued by the government to assist record-keeping and administration.

- Jun 9, 1964, William Maxwell Aitken, Lord Beaverbrook, Canadian-born politician and newspaper proprietor, died in England.

- On February 15, 1965, the Canadian maple leaf flag is adopted by Canada. It was the end of the great flag debate that had lasted through most of the 1960's until this point.

- In 1966, the federal government passed the Medical Care Act, according to which it would contribute to provincial medical-care insurance plans provided that such plans met the central federal goal of ensuring universal coverage.

- Jun 25, 1968, Leonard Marchand became the first Aboriginal to be elected to the federal Parliament since Louis Riel.

- Jul 1, 1968, the Medical Care Act (Medicare) came into effect, establishing the basis of the health care system: universal coverage, comprehensive benefits, portability of benefits and public administration.

- Jul 9, 1969, the Official Languages Act was given assent, to come into effect on September 7. It declared English and French the official languages of the federal administration.

- Oct 5, 1970, the British trade commissioner in Montréal, James Cross, was kidnapped from his home by FLQ terrorists.

- Oct 6, 1970, the FLQ (Front de libération du Québec became well known from 1963 to 1970 for their terrorist and nationalistic activities), began sending ransom notes to radio station CKAC, threatening James Cross's life if the demands were not met. Several Québec newspapers published the FLQ manifesto the same day.

- Oct 10, 1970, Québec labour minister Pierre Laporte was kidnapped in the Montréal suburb of St Hubert by FLQ terrorists.

- Oct 18, 1970, reporters, having been told by the FLQ that Laporte had been executed and put in the trunk of a car at the St-Hubert Airport parking

lot, found the car and called the police, who opened the car's trunk shortly after midnight to find Laporte's body.

- Dec 3, 1970, after police had surrounded the house where James Cross was held captive, his safe release was secured. In return, the kidnappers and their families, a total of 7 people, received safe conduct and transportation to Cuba.

- Dec 28, 1970, the suspected kidnappers of Pierre Laporte were captured in a tunnel under a farmhouse near Montréal.



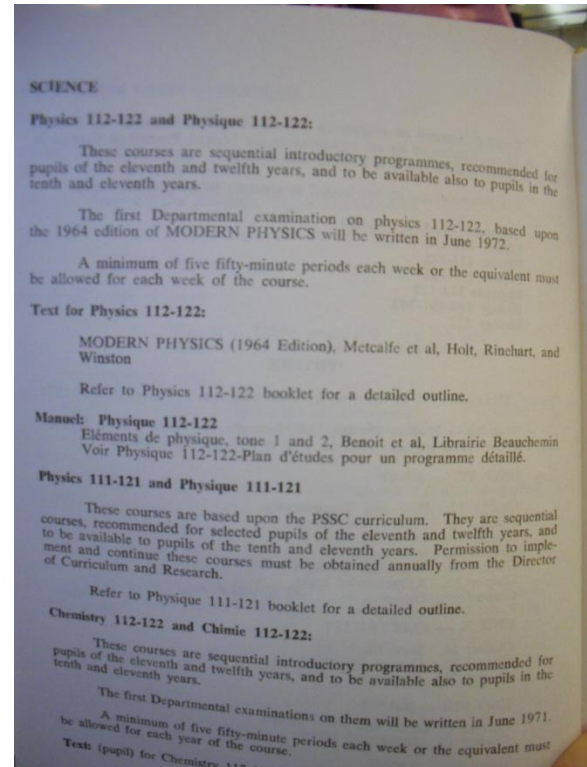
(Source: isaacbickerstaff.wordpress.com)

(Pictured above: the Canadian Military sets up in Montreal in reaction to FLQ attacks and threats)

### **Relation or Significance of Study for Education in New Brunswick Today:**

It is interesting to look at the importance that was placed on science during this time period. It is most likely due to the numerous scientific breakthroughs that this decade was witness to. The picture below of the Programs of Studies for high school in 1970 states:

"A minimum of five fifty-minute periods each week or the equivalent must be allowed for each week of the course" (Program of Study, 1970).



Science no longer captures the imagination or wows the human mind like it did in the 1960's. Society has become so numb to the number of breakthroughs we constantly make that it has become almost boring to the general population. Launching spaceships into space is just an everyday activity for us now (even though it takes months of preparation and calculations!). A shift has occurred in school curriculums to what is important, a shift from science to math and literacy. One only needs to step into a classroom in today's world and the importance of math and literacy is clearly demonstrated.

Science, Art, Social Studies and Music have all been cut down or out to make room for what society now deems as important.

### Conclusion

In New Brunswick during the 1960's, they were using textbooks that were as far as 6 years behind their current date. This, in itself, would indicate that they were out of date based on current developments in the scientific community.

Furthermore, the textbooks we examined did not accurately reflect the scientific breakthroughs of the times. Specifically the first man to walk on the moon was not mentioned in the textbooks used in 1970, the first heart transplant was done in 1967 and yet the textbooks only mentioned the experiments of artificial hearts, nothing about actual heart transplants. We felt these were some of the most influential events of the decade and that if textbooks were up to date they would be seen as evidence in the textbooks. We do realize that other resources may have been used in the classroom to educate students which may have been more up to date, but textbooks were not. It was not until sometime after the 1970 -1971 school year that the walk in space was introduced into the classroom textbook.

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